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**Curating Heritage in the Digital Age:
An Exploration of How America's National Heritage Areas
Are Using Technology to Share Their Stories**

A Master's Capstone Paper

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Table of Contents

Executive Summary	i
Introduction.....	1
Background	2
Methodology	4
Findings.....	7
Discussion.....	27
Recommendations	28
Conclusion	30
Bibliography	31
Appendix A. National Heritage Area Websites.....	A-1
Appendix B. Social Media Assessment.....	A-3
Appendix C. Other Technologies Assessment	A-5

Executive Summary

Research Question

This capstone project answers the following two primary research questions: 1) how are America's National Heritage Areas (NHAs) using technology to share their stories, and 2) what types of information are NHAs using technology to share? Additional secondary research questions are outlined in the Methodology section.

Data Source

Primary data was collected from the websites and social media accounts of each of the forty-eight active NHAs in the United States as of April 2018.

Methodology

Systematic observational content analysis of the websites and social media accounts was conducted by the author. Two rating schemes were developed to assess the level of activity on four social media platforms. The number of followers/subscribers to each account was also recorded. Additionally, website content was examined to determine which, if any, of ten pre-determined technologies each NHA uses to share its stories. Basic quantitative analysis was conducted using Microsoft Excel.

Key Findings

Analysis of the data resulted in the the following key findings:

- All but one NHA have Facebook pages; however, only 48% (23) of them use it 'very actively';
- There is a positive correlation between an NHA's level of activity on Facebook or Instagram and the number of followers each account has;
- Eighty-five percent of NHAs use at least one of the ten pre-determined technologies to share their stories; and,
- The three most common technologies are photo galleries, interactive maps, and videos.

Recommendations

The following management recommendations are offered to NHAs:

- create accounts on all four social media platforms, stay active, grow audiences on each;
- cross-promote content and share others' content; there is no need to reinvent the wheel;
- invite community participation through photo contests, sharing personal stories, etc.;
- use other technologies to engage new audiences that are less inclined to read at length;
- seek partnerships with tourism agencies and educational institutions to share resources;
- assess costs and intended uses of a technology before embarking on a project; and,
- develop marketing strategies for any content created.

Introduction

National Heritage Areas (NHAs) are tasked with uncovering and sharing stories that celebrate America's diverse history and heritage. In an increasingly digital world, it is critical, albeit challenging, for organizations with limited resources to use various technologies as a means of maintaining relevancy and reaching new and diverse audiences. This capstone project answers the following two primary research questions: 1) how are America's NHAs using technology to share their stories, and 2) what types of information are NHAs using technology to share? Additional secondary research questions are included in the Methodology section below. In order to answer these questions, three categories of data were collected and analyzed: 1) NHAs' activity on four social media platforms, 2) the volume of followers/subscribers of each social media account, and 3) NHAs' use of other technologies to deliver curated content.

This paper will begin by orienting the reader with background information about NHAs. Next, it will describe the data source and the methodology used to collect and analyze the data. It will then discuss the findings brought to light through this analysis, and provide examples of different ways in which NHAs are using technology to share their stories. The paper will close by providing management recommendations for NHAs and other relevant cultural organizations looking to curate heritage in the digital age. A bibliography and appendices are included at the end.

Background

This section orients the reader by providing background information about NHAs.

National Heritage Areas

Merriam-Webster defines the word ‘heritage’ as “something transmitted by or acquired from a predecessor: legacy, inheritance, or tradition” (Merriam-Webster 2018). In the context of NHAs, heritage may come in the form of language, music, traditional arts, trails, geological formations, technological advancements, community development patterns, architectural styles, battlefields, and the list goes on. NHAs currently exist in thirty-one states; they celebrate and promote American nature, culture, and history in ways that are most relevant to the local communities they serve.

The NHA program of the National Park Service (NPS) was created in 1984 by then-president Ronald Reagan. NHAs are federally-designated places “where historic, cultural, and natural resources combine to form cohesive, nationally important landscapes” (National Park Service 2018). Reagan referred to NHAs as “‘a new kind of national park’ that married heritage conservation, recreation, and economic development” (National Park Service 2018). Since 1984, forty-nine NHAs have been designated, forty-eight of which remain active today.¹

NHAs are not national park units; rather they are living landscapes, which are home to many people and community organizations. In this context, a landscape can be thought of as a set geographical area ranging in size from the nine-mile long Augusta Canal corridor in Georgia to the entire State of Tennessee, and everything within its boundaries. A “living landscape” acknowledges that humans are a critical component of the landscape and accepts that human

¹ The Southwestern Pennsylvania Heritage Preservation Commission sunset in 2008.

processes will undoubtedly change the landscape over time. This is in contrast to the management approaches used in some National Parks, where the goal is to preserve, or “freeze,” the landscape, and/or the buildings in it in time.

Each NHA is managed by a local coordinating entity (LCE) that was designated in the NHA’s enabling legislation. LCEs are the legal entities that coordinate and carry out the work of the NHAs. They are most commonly non-profit organizations; however, there are cases where the LCE is a state or local government agency, or educational institution. NHAs, through their LCE, “collaborate with communities to determine how to make heritage relevant to local interests and needs” (National Park Service 2018). Typically, LCEs are synonymous with the NHA they manage; however, if an NHA were to sunset, the LCE could still exist as a stand-alone entity and do the same work, but would not have its stream of federal funding.

To illustrate, Freedom’s Way NHA (managed by Freedom’s Way Heritage Association, Inc.) in Massachusetts and New Hampshire “connects the people, places, and communities of the Heritage Area through preservation, conservation, and educational initiatives that protect and promote the natural, historical, and cultural resources of the region” (Freedom’s Way NHA 2018). Freedom’s Way NHA has a “long history of social and intellectual innovation, including the emergence of a democratic vision which led to the American Revolution; a tradition of religious freedom and experimentation; and nationally influential movements for [land] conservation, social justice, abolitionism, and the American Renaissance of the nineteenth century” (National Park Service 2018). Freedom’s Way NHA works in partnership with Minute Man National Historical Park, U.S. Fish and Wildlife Service, Massachusetts Department of Conservation and Recreation, as well as numerous local land trusts, historical societies, and cultural organizations within its borders to advance its mission.

Methodology

This section describes the methodology used to gather and analyze the data needed to answer the research questions posed above. Primary data was collected through a systematic observational content analysis of the websites and social media accounts of each of the forty-eight active NHAs. A list of NHAs and their website URLs is included in Appendix A. Each social media account was assessed for its level of activity over a two-week period using a process described in greater detail below. The number of followers/subscribers was recorded for each social media account as well. Each website was examined to identify evidence of ten pre-determined technologies used to deliver curated content. This process is also described in greater detail below. Basic quantitative analysis was performed using Microsoft Excel.

This particular methodology is appropriate to answer the research questions for a number of reasons. First, there was no existing literature or data to analyze on this topic as it pertains to NHAs. Second, there are only forty-eight active NHAs in the United States, each of which operates autonomously and independent of one another. Each NHA varies in geographical size and location, target audience, availability of financial and human resources, and established interpretive themes. This results in forty-eight completely different approaches to curating heritage in the digital age. As this research was exploratory in nature, it made sense to conduct a broad analysis to understand the big picture across NHAs in general.

Identifying Content

The official website of each NHA was identified from the complete listing of the forty-eight active NHAs on the Alliance of National Heritage Area's website (Alliance of National Heritage Areas 2018). Social media accounts, which for the purpose of this project include Facebook, Twitter, Instagram, and YouTube, were identified primarily through hyperlinks

provided on each NHA's website. A secondary search on each social media platform was conducted to identify any social media accounts that did not appear to be linked to an NHA's website. Ten technologies were identified as tools that are actively being used by heritage organizations across the globe to present content in a manner other than a traditional text-based approach. A descriptive list of these technologies is included in Appendix B.

Assessing Content

The author developed two rating schemes to assess the level of activity observed on the social media accounts. Facebook, Twitter, and Instagram use the same rating scheme because those platforms are typically used with similar frequency (Table 1). The rating scheme was applied to content posted during the period of April 1 to April 15, 2018. The rating scheme for YouTube differed slightly because it typically takes more time and resources to generate video content, and therefore the frequency of use is lower (

Table 2). A table of assessments is included in Appendix C. Additionally, the number of followers/subscribers on April 15, 2018 was recorded for each social media account.

Table 1. Rating scheme for level of activity on Facebook, Twitter, and Instagram

Number of Posts in 2 weeks	Activity Rating
7+	Very Active
5-6	Active
3-4	Somewhat Active
0-2	Not Active
N/A	No Account

Table 2. Rating scheme for level of activity on YouTube

Date of Most Recent Upload	Activity Rating
Less than 1 month ago	Very Active
2-6 months ago	Active
7-11 months ago	Somewhat Active
More than 12 months ago	Not Active
N/A	No Account

A simple ‘Yes’ or ‘No’ was recorded to denote whether or not evidence of each of the ten pre-determined technologies was found on the NHA’s website. A table of results is included in Appendix D. Strong and diverse examples of the use of each technology were identified and will be presented in the findings.

Data Analysis

Basic quantitative analysis was conducted using Microsoft Excel for each of the three categories of data. In addition to the primary research questions, the data can be used to answer the following secondary research questions:

- What are the most/least commonly used social media platforms among NHAs?
- How actively are NHAs using each social media platform?
- What are the most/least actively used social media platforms among NHAs?
- Are all NHAs using social media to reach their audiences?
- Is there a correlation between the level of activity and the volume of followers/subscribers a social media account has?

- What technologies are most/least commonly used on NHA websites to share their stories?
- Are NHAs using multiple technologies to share their stories?
- Are all NHAs using technology to share their stories?

Limitations of Scope

The purpose of this capstone project is to provide a broad understanding of how America's NHAs are using technology to share their stories. Evaluating the effectiveness and comparing the costs and benefits associated with implementing these technology-driven strategies is beyond the scope of this project, but of increasing concern to NHAs and other cultural organizations with limited financial and human resources. This issue is highlighted in the program of 2018 Massachusetts History Conference through the inclusion of a panel session titled, "Self-Guided Tours: To App or Not to App?"

Findings

This section discusses the findings from the analysis, and draws conclusions in two main categories: 1) NHAs' use of social media, and 2) NHAs' use of other technologies to share their stories. Additionally, examples of compelling technology-based curation initiatives discovered during the research process are showcased.

Social Media

The content analysis process examined NHAs' accounts on four common social media platforms: Facebook, Instagram, Twitter, and YouTube. The process sought to determine three things: 1) what social media platforms are NHAs using, 2) how active are NHAs on each social

media platform, and 3) is there a correlation between how often an NHA posts on a social media account, and how many followers/subscribers that account has? The following is a discussion of what was found through attempting to answer those questions.

What social media platforms are NHAs using?

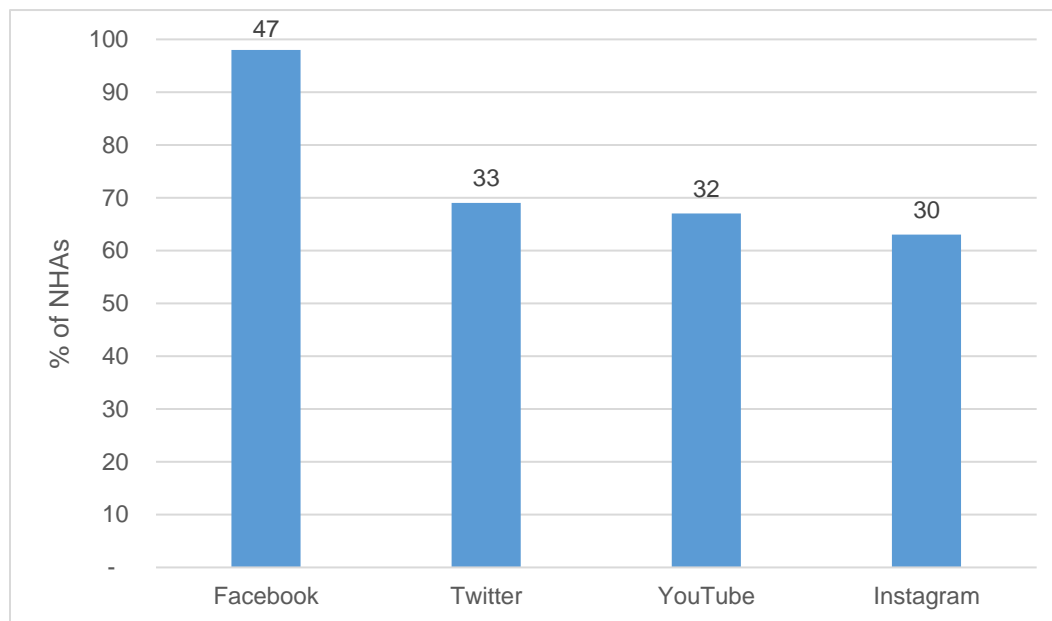


Figure 1. Number of NHAs with accounts on each social media platform

All forty-eight active NHAs are using some form of social media to share their stories. Facebook is the most commonly used social media platform; only one NHA does not have a Facebook page. Twitter, YouTube, and Instagram follow in how commonly they are used among NHAs, respectively (Figure 1).

NHAs are using social media platforms to share information about, and photos and videos of programs they have coordinated, as well as of sites of interest within the NHA. Additionally, some NHAs use Facebook to promote their and their partners' events. Those NHAs with YouTube accounts post informative and educational videos that they, or others, have made about the NHA. All four social media platforms are used to connect with interested

audiences, as well as with community partners, and other related organizations, be it in mission, themes, or location.

Fifteen percent of NHAs (7) use Facebook as their only social media platform (Figure 2). Around two-thirds of NHAs also have a Twitter (33), YouTube (32), or Instagram (30) account.

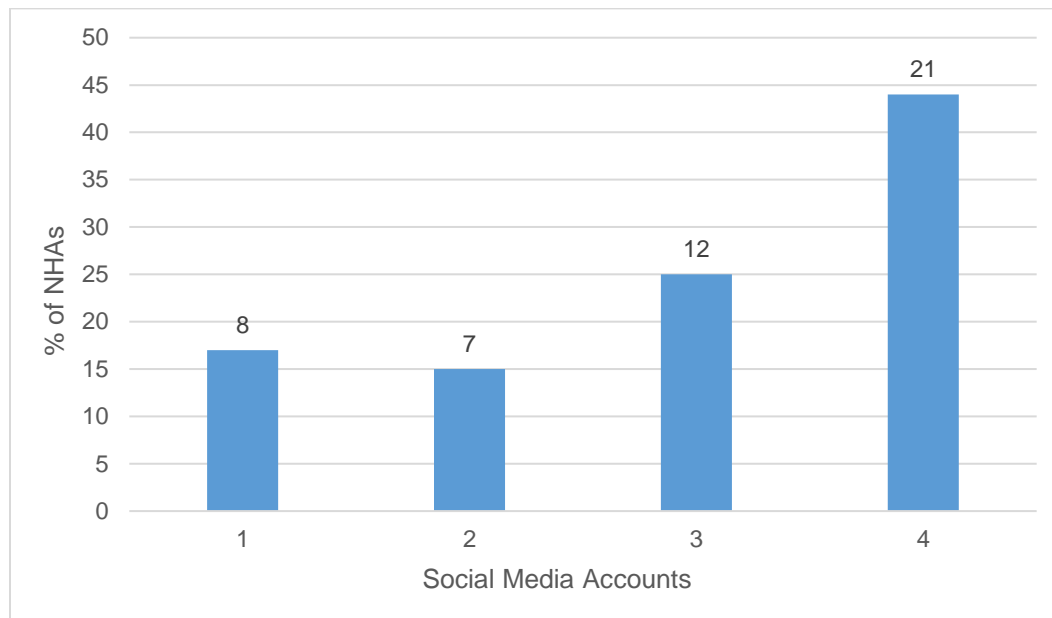


Figure 2. Number of social media accounts NHAs have

Forty-four percent of NHAs (21) have accounts on all four social media platforms. If an NHA has a Twitter account in addition to its Facebook account, it is almost four times more likely to also have a YouTube or Instagram account than it is if it doesn't have a Twitter account.

How active are NHAs on each social media platform?

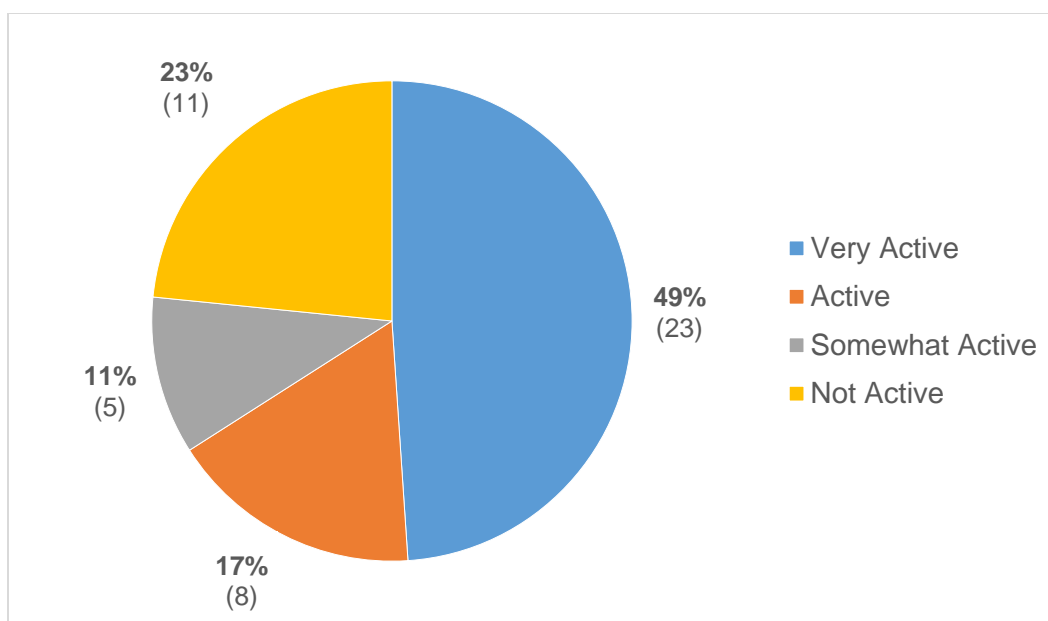


Figure 3. Facebook: NHAs' level of activity. See Table 1 and

Table 2 for rating scheme.

It is one thing to have a social media account, but it is another to be an active user of that account. Figures 3-6 present the level of activity assessments for each social media platform.

Out of the forty-seven NHAs with a Facebook account, almost half (23) of them are 'very active' on Facebook, meaning that they posted at least seven times between April 1 and April 15, 2018 (Figure 3). Seventeen percent (8) were 'active,' while ten percent (5) were 'somewhat active.' Nearly a quarter (11) were considered 'not active' on Facebook, meaning that they posted no more than twice during the same two-week period. This assessment did not apply to the one NHA that does not have a Facebook account.

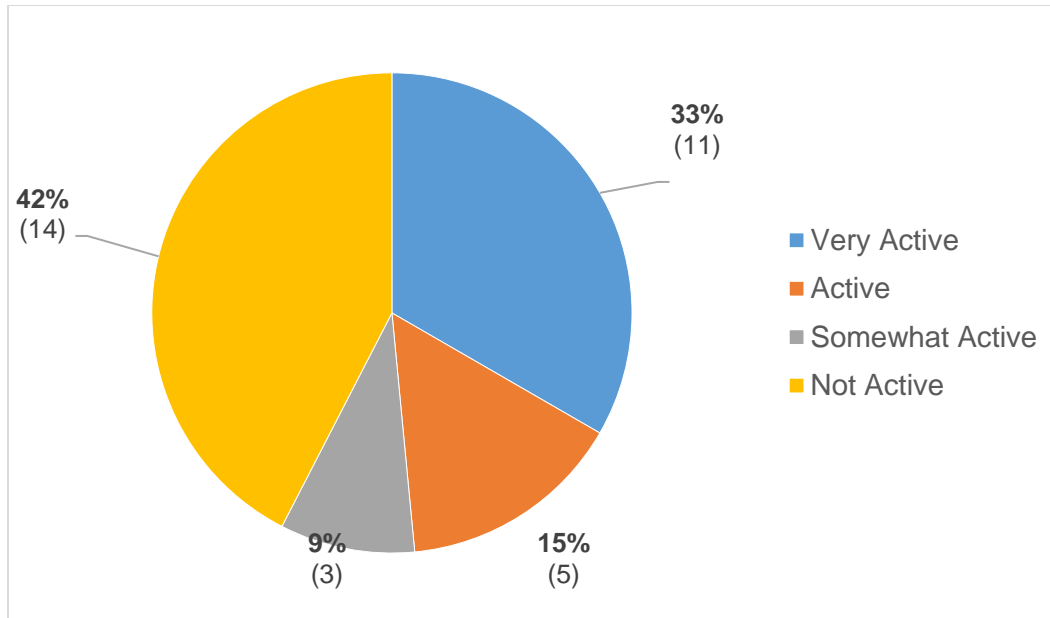


Figure 4. Twitter: NHAs' level of activity. See Table 1 and

Table 2 for rating scheme.

Out of the thirty-three NHAs with a Twitter account, one third (11) of them are 'very active' on Twitter, meaning that they posted at least seven times between April 1 and April 15, 2018 (Figure 4). Fifteen percent (5) were 'active,' while nine percent (3) were 'somewhat active.' Nearly half of NHAs with Twitter accounts (14) were considered 'not active,' meaning that they posted no more than twice during the same two-week period. This assessment did not apply to the nearly one-third (15) of NHAs that do not have a Twitter account.

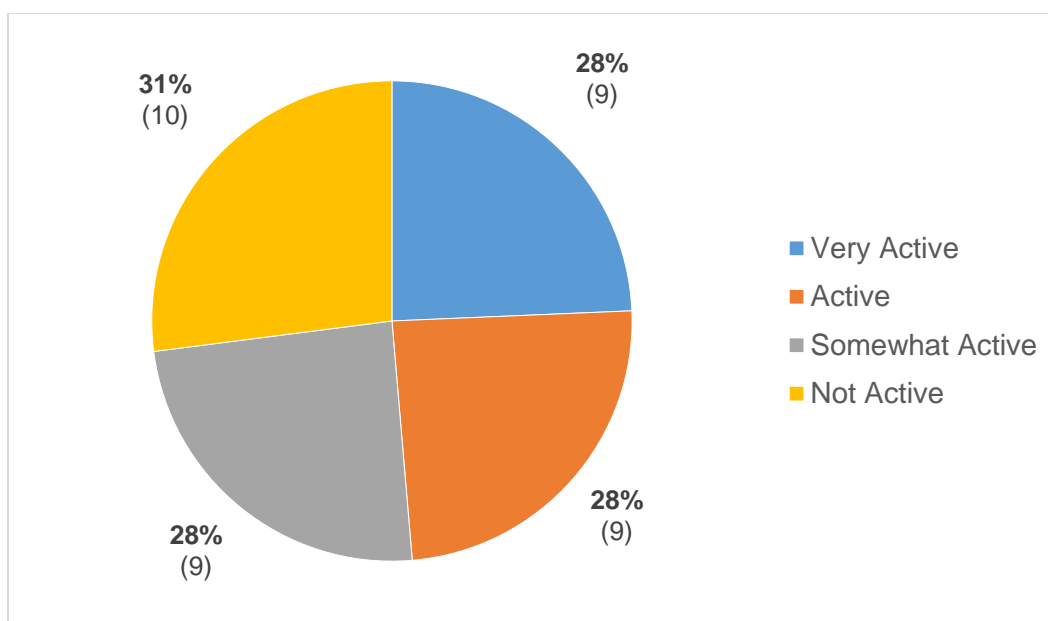


Figure 5. YouTube: NHAs' level of activity. See Table 1 and

Table 2 for rating scheme.

Out of the thirty-two NHAs with YouTube accounts, activity levels were just about even with twenty-eight percent (9) each as 'very active,' 'active,' and 'somewhat active,' meaning that their most recent upload was within the past month, two to six months, and seven to eleven months, respectively (Figure 5). Thirty-one percent (10) were considered 'not active,' meaning that their most recent upload was over a year old. This assessment did not apply to the one-third (16) of NHAs that do not have a YouTube account.

Out of the thirty NHAs with Instagram accounts, seventeen percent (5) of NHAs were 'very active' on Instagram, meaning that they posted at least seven times between April 1 and April 15, 2018 (Figure 6). An additional seven percent (2) were considered 'active,' while thirteen percent (4) were considered 'somewhat active.' The majority of NHAs with Instagram accounts (19) were considered 'not active,' meaning that they posted no more than twice during

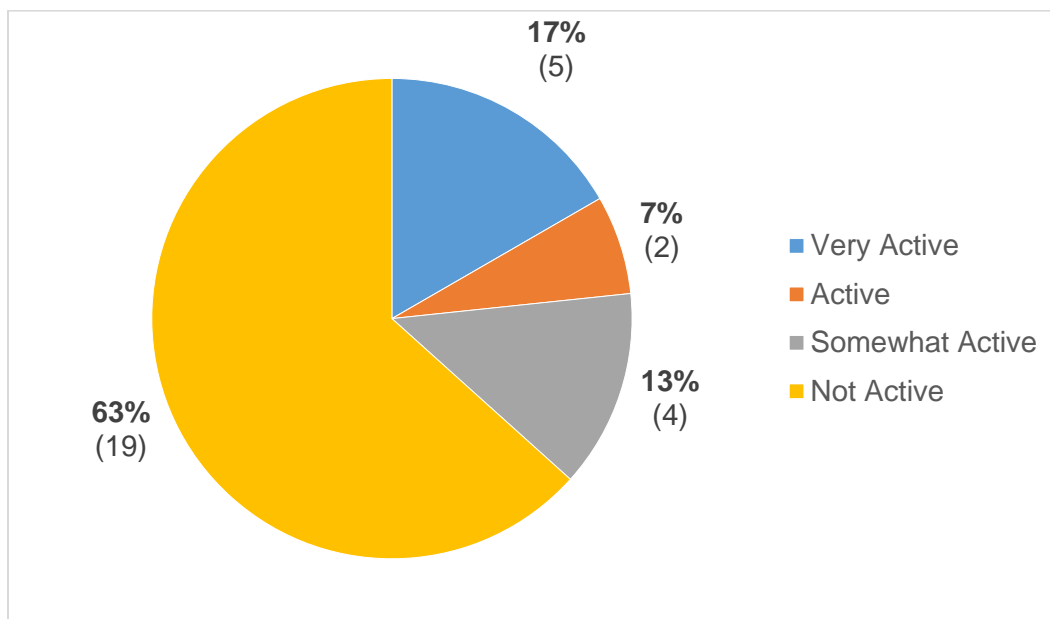


Figure 6. Instagram: NHAs' level of activity. See Table 1 and

Table 2 for rating scheme.

the same two-week period. This assessment did not apply to the thirty-eight percent (18) of NHAs that do not have an Instagram account.

Is there a correlation between how often an NHA posts to social media, and how many followers/subscribers that account has?

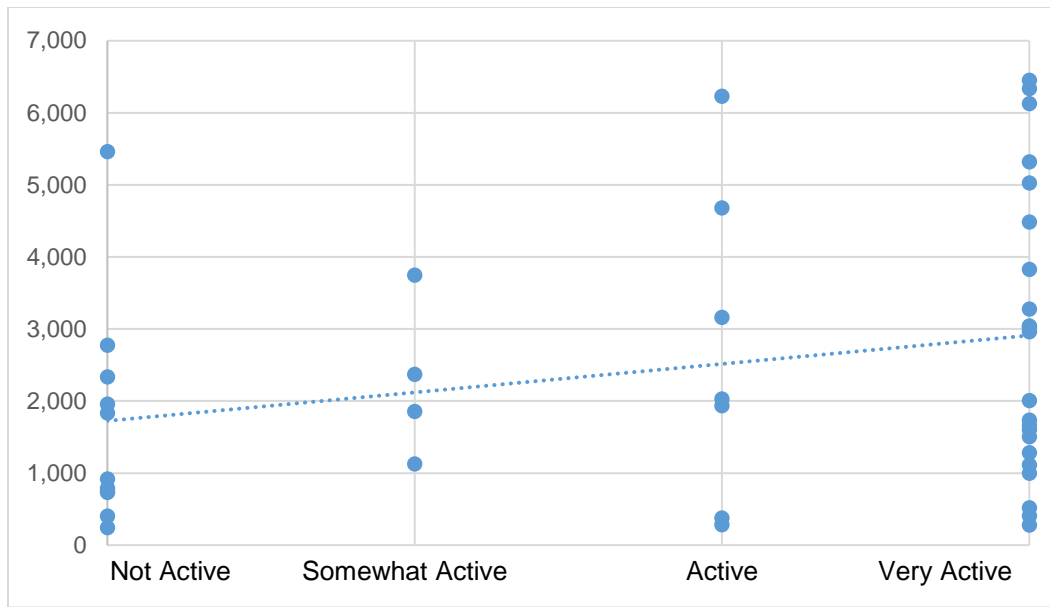


Figure 7. Facebook: activity level in relation to number of followers (N=45)

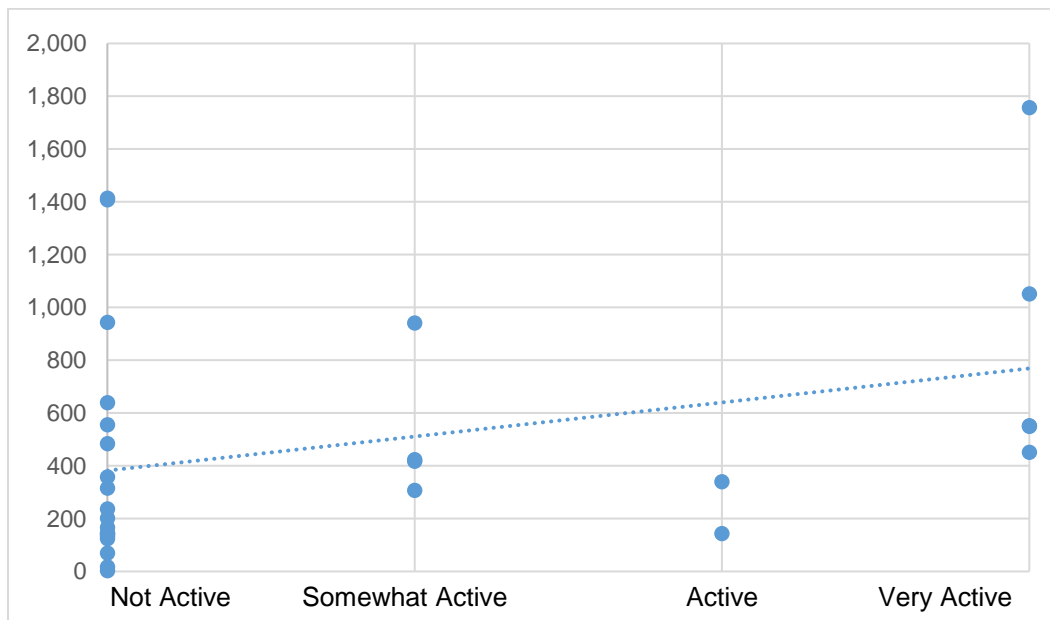


Figure 8. Instagram: activity level in relation to number of followers (N=30)

It is also one thing to be active on social media, but it is another to have an audience. By comparing activity levels on each social media platform with the number of followers/subscribers for each account, it was determined that there is a positive correlation between the two for Facebook (Figure 7) and Instagram (Figure 8). In other words, the more

active an NHA's account is, the more likely it is to have a larger audience. The data for Twitter and YouTube did not show any correlation between the two variables.

Other Technologies

The content analysis process also examined NHAs' websites for evidence of the use of ten pre-determined technologies that can be used to deliver curated content. The process sought to determine three things: 1) are NHAs using technology to deliver curated content via their website, 2) what technologies are NHAs most commonly using to deliver curated content, and 3) what types of content are NHAs sharing? The following is a discussion of what was found through attempting to answer these questions.

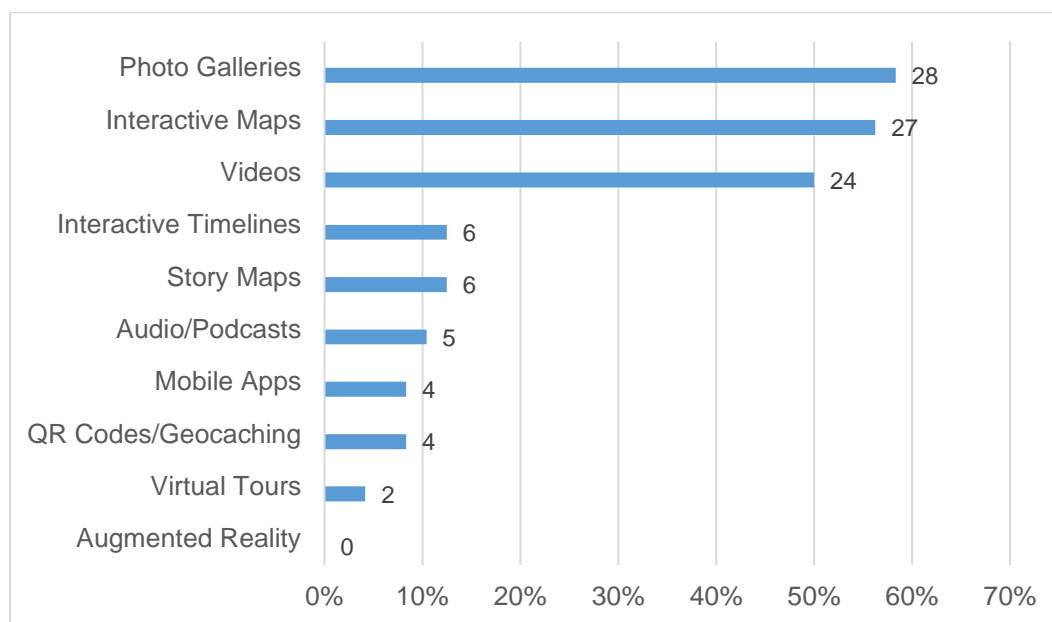


Figure 9. NHAs' use of other technologies to share their stories

In addition to the data shown in Figure 9, the analysis found that fifteen percent of NHAs (7 of 48) do not currently use one of the ten pre-determined technologies to share their stories. Seventeen percent (8 of 48) use one form of technology, and twenty-five percent (12 of 48) use two. Nearly half (21 of 48) use three or more technologies; the most common combination being

photo galleries, interactive maps, and videos. The greatest number of technologies used is five, and only six percent (3 of 48) are at this level. It should be stated that the goal for NHAs should not be to use as many technologies as possible, but for each to determine which are most appropriate for them and develop a quality, sustainable product that actively engages its audiences.

Photo Galleries

Photo galleries are the most commonly used technology that NHAs are using to tell their stories. Fifty-eight percent (28 of 48) have a photo gallery in some form accessible on or from their website (Figure 9). NHAs are using photos galleries to educate and engage viewers, as well as to document events and promote tourism. The following are five examples from Blackstone, Erie Canalway, Mississippi Delta, Rivers of Steel, and Silos and Smokestacks that demonstrate how NHAs are using photo galleries in different ways.



Figure 10. Capturing the Heart of America photo contest entry by Dave Austin

Blackstone River Valley National Heritage Corridor

Blackstone River Valley NHC in Massachusetts and Rhode Island uses its gallery to not only display images of popular destinations within the NHA, but also showcase the work of local

photographers. The ‘Photo of the Week Contest’ invites the public to submit “images that capture a moment, and shine the spotlight on the joys of living in the NHA” (Blackstone River Valley NHC 2018). Winners’ photographs are then included in the gallery. This is a great example of a way for NHAs to encourage community engagement from people who live in or visit the NHA.

Erie Canalway National Heritage Corridor

Erie Canalway in New York uses its galleries to educate its audience about the history and technology of the Erie Canal. The “Guide to Canal Structures” gallery includes twelve images of the various parts of the structure of a canal (Erie Canalway NHC 2018). Each image includes a brief description of the canal structure. Another gallery titled, “Canal Vessels” shows examples of the various vessels that one can expect to see navigating the canal. The thoughtful captions included with each photo makes the gallery an excellent educational tool.

Mississippi Delta National Heritage Area

Mississippi Delta in western Mississippi uses a photo gallery project to promote heritage tourism in the region. Mississippi Delta partnered with GRAMMY Museum® Mississippi to develop the “Top 40 Places to Visit in the Mississippi Delta” project. This project boasts high-quality, full-screen images, and was “designed to encourage visitors and residents to seek these attractions as starting points for discovering the rich cultural heritage of the region over time” (Mississippi Delta NHA 2018). The wide variety of sites included in this project suggests that there is something for everyone to discover in Mississippi Delta NHA.

Rivers of Steel National Heritage Area

Rivers of Steel in western Pennsylvania uses a photo gallery approach in its online collections. The public can search or browse through thousands of entries of digitized content

relevant to the NHA, including historic photos, maps, objects, and documents (Rivers of Steel NHA 2018). This content is available for download upon request. This is an excellent resource for those engaged in research, but is less fitting in its current form as content to promote on social media accounts.

Silos and Smokestacks National Heritage Area

Silos and Smokestacks in northeastern Iowa hosts its photo galleries on Flickr (Silos and Smokestacks NHA 2018). This platform is widely used by professional and amateur photographers alike. By using this platform, Silos and Smokestacks can reach new audiences who may not otherwise be familiar with the work of the NHA. Like other NHAs, Silos and Smokestacks coordinates an annual photo contest called “Capturing the Heart of America.” Submissions from the public are branded with a watermark that further promotes the NHA (Figure 10). This is a smart technique that reinforces the NHA’s identity as photos are shared across multiple online platforms.

Interactive Maps

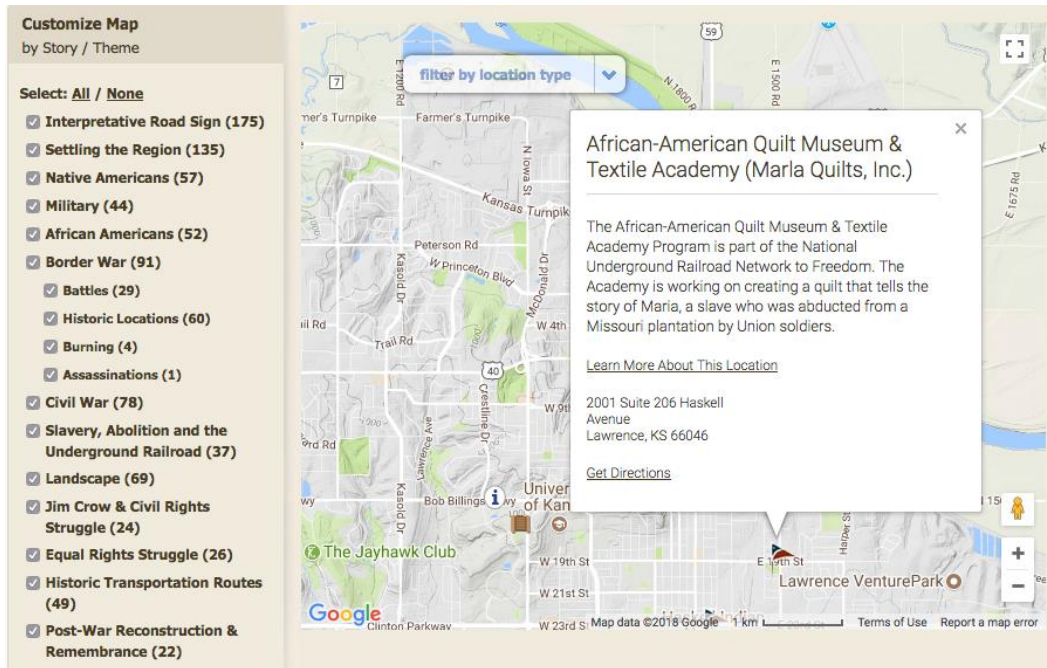


Figure 11. Interactive map on the Freedom's Frontier NHA website

Interactive maps are the second most commonly used technology used by NHAs to tell their stories. Fifty-six percent (27 of 48) have an interactive map in some form accessible on their website (Figure 9). NHAs are using interactive maps to orient and educate their audience, in addition to promoting tourism. Most often, these maps include the NHA's boundary and various natural, cultural, and historical resources within the NHA. The following are three examples from Cache la Poudre River, Delaware and Lehigh, and Freedom's Frontier that demonstrate how NHAs are using interactive maps in different ways.

Cache la Poudre River Corridor

Cache la Poudre River in north-central Colorado invites visitors to its website to use its interactive map to explore the heritage area and create an itinerary for a future trip to the region (Cache la Poudre River NHA 2018). Users are presented with a Google Map with over sixty-five points of interest that can be toggled on or off by selecting the type of resource, such as

museums, trails, and wayside interpretive signs, in the sidebar. Users can click on a resource to be taken to a page with its description, location and directions, tourism and accessibility information, and a series of photos. By clicking the “+ Add To My Tour” button, users can save the site to their personal itinerary, which can later be used for directions and shared with others.

Delaware and Lehigh National Heritage Corridor

Delaware and Lehigh NHC in eastern Pennsylvania developed its interactive map based around its signature resource the D&L Trail, a rail trail that stretches 141 miles from Trenton, New Jersey northwest through Allentown and onward towards Wilkes-Barre (Delaware and Lehigh NHC 2018). The map can be used to understand the current status of each trail section, and get a sense of what to expect before visiting. Users can also learn about the heritage of the area by clicking on the towns and sites they would travel through while on the trail. The descriptions include photographs, tourist information, and a set of icons used to classify each resource into categories including antiques and crafts, places to stay, and wildlife viewing.

Freedom's Frontier National Heritage Area

Freedom's Frontier in eastern Kansas has an interactive map on its website that shows the natural, cultural, and historical resources of the area (Freedom's Frontier NHA 2018). Freedom's Frontier organized these resources by themes that can be toggled on or off such as “Settling the Region,” “Border War,” and “Jim Crow and Civil Rights Struggle.” In addition to presenting the user with information, Freedom's Frontier invites the public to share their stories and photos from locations on the map. Each resource has its own page that when clicked on provides a description, tourist information, a link to directions, and occasionally a video about the site.

Video



Figure 12. Crossroads of the American Revolution NHA’s “Meet Your Revolutionary Neighbor”

Video is the third most commonly used technology that NHAs are using to tell their stories. Fifty percent (24 of 48) have video embedded on their website (Figure 9). NHAs are using videos to make heritage come to life, as well as document traditions and oral histories from region. The following are examples from Atchafalaya and Crossroads of the American Revolution that demonstrate how NHAs are using videos to share their stories in different ways.

Atchafalaya National Heritage Area

Atchafalaya NHA in south-central Louisiana has produced a series of “Artisan Videos” that showcase the NHA’s heritage. The topics, which include wood carving, basket weaving, and music, explain the people of the region’s “inseparable connection with the unique natural landscape that has shaped its history and become an important component of cultural economic development locally” (Atchafalaya NHA 2018). Each video is professionally produced and range from ninety seconds to three and a half minutes in length. The videos are available on Atchafalaya NHA’s website, as well as their YouTube account. Over the course of year on YouTube, the videos have been viewed between 260 and 1,400 times.

Crossroads of the American Revolution National Heritage Area

Crossroads of the American Revolution NHA in central New Jersey has developed two projects that use videos to share the stories of the region and bring history to life: “Meet Your Revolutionary Neighbors,” and “Revolutionary Storylines” (Crossroads of the American Revolution NHA 2018). Crossroads of the American Revolution NHA worked with over sixty historians and research consultants to develop the content needed for these projects. In addition to educating visitors to the website, Crossroads of the American Revolution NHA suggests a number of ways for educators to incorporate these resources into their curricula.

“Meet Your Revolutionary Neighbors” is a collection of short biographies that reveal “how people from all walks of life and regions of New Jersey dealt with struggles over personal responsibility, community, and public service during the years of the American Revolution” (Crossroads of the American Revolution NHA 2018). So far, fifty-eight historical figures, including women and African-Americans, have been profiled; however, accompanying videos have only been created for four thus far (Figure 12). “Revolutionary Storylines” is a series of fourteen stories that are “representative of the war’s events and impacts in different regions of the heritage area and substantially represent the overall story of the American Revolution in New Jersey” (Crossroads of the American Revolution NHA 2018). All of the videos are professionally produced and range from three to five minutes in length.

Interactive Timelines

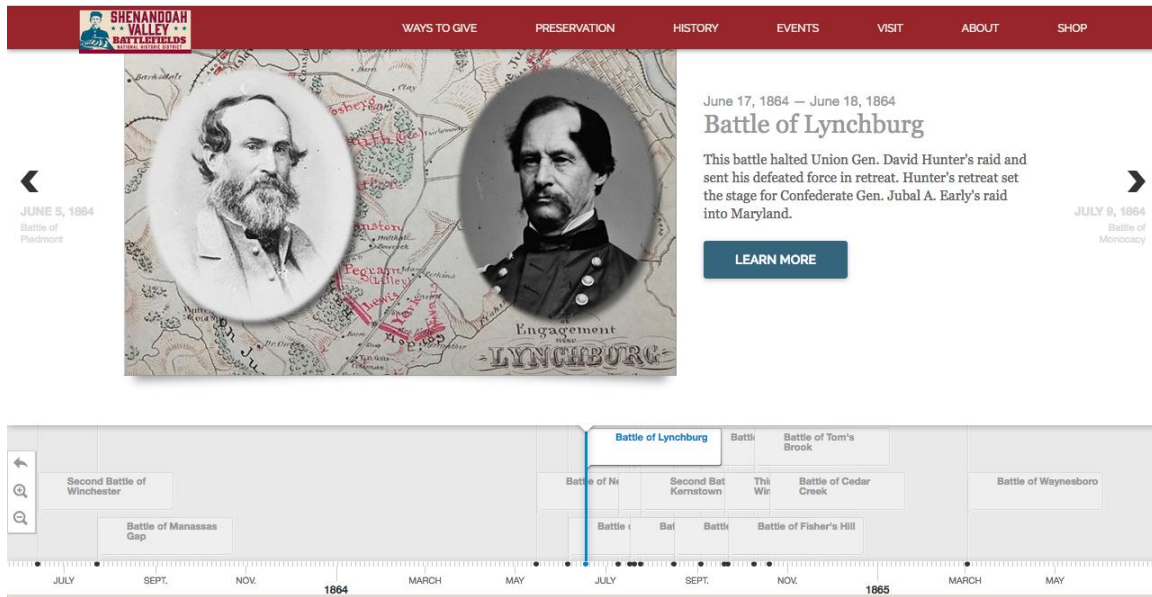


Figure 13. Shenandoah Valley Battlefields NHD’s interactive timeline makes navigating history fun

Thirteen percent (6 of 48) have an interactive timeline on their website to assist in telling their story (Figure 9). Shenandoah Valley Battlefields National Historic District in Virginia developed an interactive timeline that includes all of the battles of the Civil War that took place in the Shenandoah Valley (Shenandoah Valley Battlefields NHD 2018). Users can click on a particular battle to learn more about the historic event. Historic photos and maps are included. Interactive timelines are could likely be suitable for most NHAs; however, they are particularly relevant for those focused on a particular historical event or period of significance.

Story Maps

Thirteen percent (6 of 48) are using Esri’s Story Maps tool to assist in their storytelling (Figure 9). Wheeling NHA in West Virginia created the Mt. Wood Cemetery Story Map to share the information it uncovers while embarking on a multi-year restoration of the nineteenth century cemetery (Wheeling NHA 2016). Story Maps allows creators to combine maps with narrative text, images, and multimedia content. Story Maps are an excellent, low-cost way for NHAs to

share their stories in an engaging manner that connects history with geography. While it is free to create a Story Map, the process to develop the content could be resource intensive.

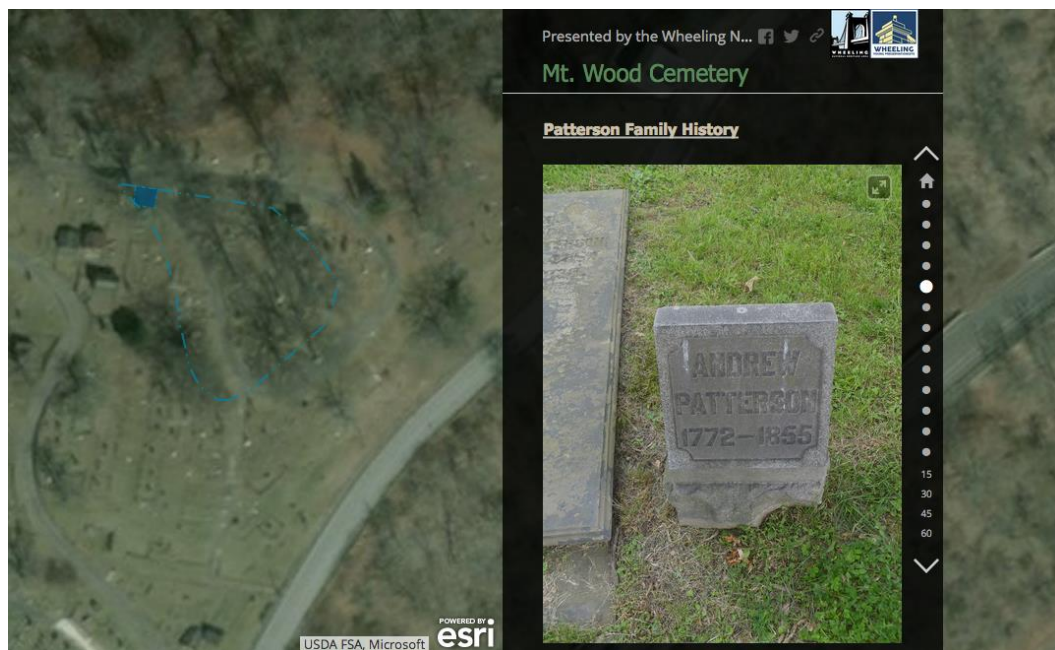


Figure 14. Wheeling NHA shares the stories of Mt. Wood Cemetery using ESRI Story Maps

Audio Recordings/Podcasts

Ten percent of NHAs (5 of 48) have audio recordings on their websites, or refer to a podcast that they host to share their stories (Figure 9). South Park NHA in Colorado began producing a podcast titled, “Slice of South Park” in 2017. New episodes air monthly and explore topics such as “The Women and Structures of South Park,” “Graveyards of Park County,” and “Park County Winemakers” (South Park NHA

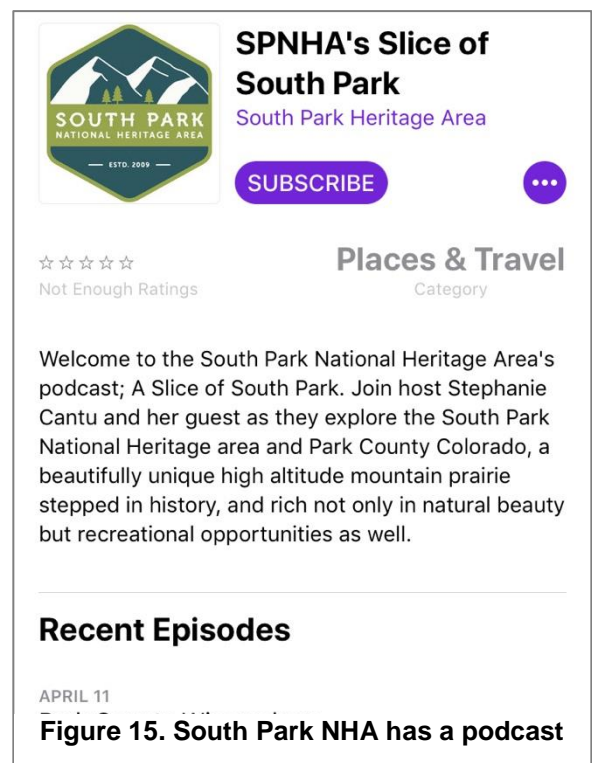


Figure 15. South Park NHA has a podcast

2018). Episodes range from fifteen to forty-five minutes in length, and feature guests who are knowledgeable about the topic being discussed.

Podcasts can be a resource intensive endeavor requiring research, communication, production, and marketing skills. Consistency and a regular frequency also appear to be important in terms of establishing a following. The stories that NHAs have to share are well suited for podcasts, and numerous history-themed podcasts, such as “Revisionist History,” have gained significant attention in recent years.

Mobile Applications

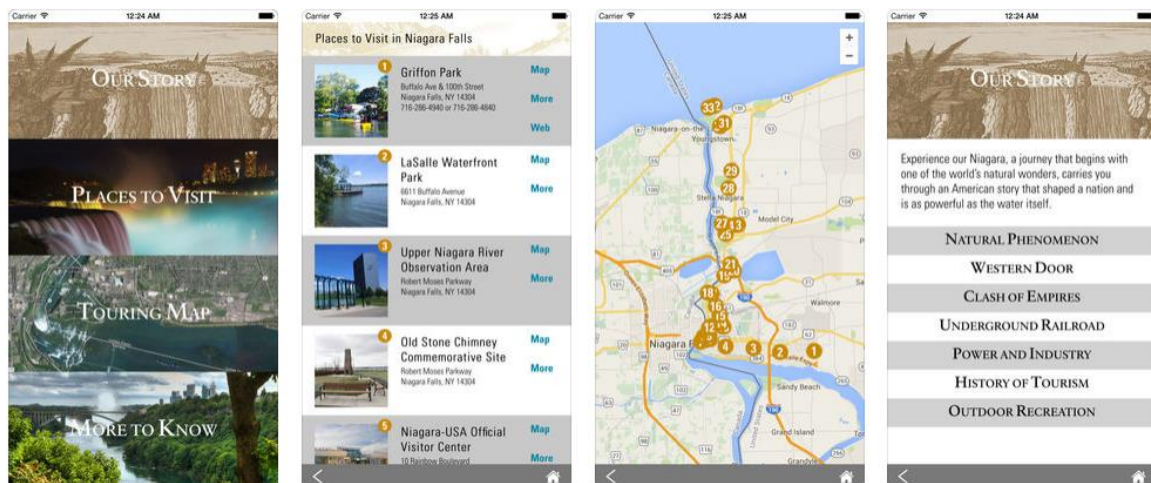


Figure 16. Screenshots from Niagara Falls NHA’s “Discover Niagara” app

Eight percent of NHAs (4 of 48) have developed a mobile application (“app”) (Figure 9). Niagara Falls NHA in New York hired a developer to create “Discover Niagara,” a free app available for download on smart devices (Niagara Falls NHA 2018). The app provides useful information for visitors all in one place. Additionally, Niagara Falls NHA made it a point to prioritize sharing its story within the app (Figure 16). App development can be expensive and may not be appropriate for all NHAs. The NHA must really understand how its intended audience would use the app, and determine a way to market the app as a useful tool.

Geocaching/QR Codes

Eight percent (4 of 48) use QR codes or have developed a geocaching program to share the NHA's stories through by encouraging visitors to explore various sites within the Heritage Area (Figure 9). Lackawanna Heritage Valley NHA in Pennsylvania developed a geocaching program called, "Piecing Together the Past: A Geo-Tour of Historic Sites in the Lackawanna Heritage Valley" (Lackawanna Heritage Valley NHA 2018). Piecing Together the Past is a free, self-guided tour that takes participants on a hunt for caches containing puzzle pieces at twelve historic sites in the City of Scranton. Once all twelve pieces are collected, participants are awarded a prize. Lackawanna Heritage Valley NHA worked in partnership with Steamtown National Historic Site to create this program.

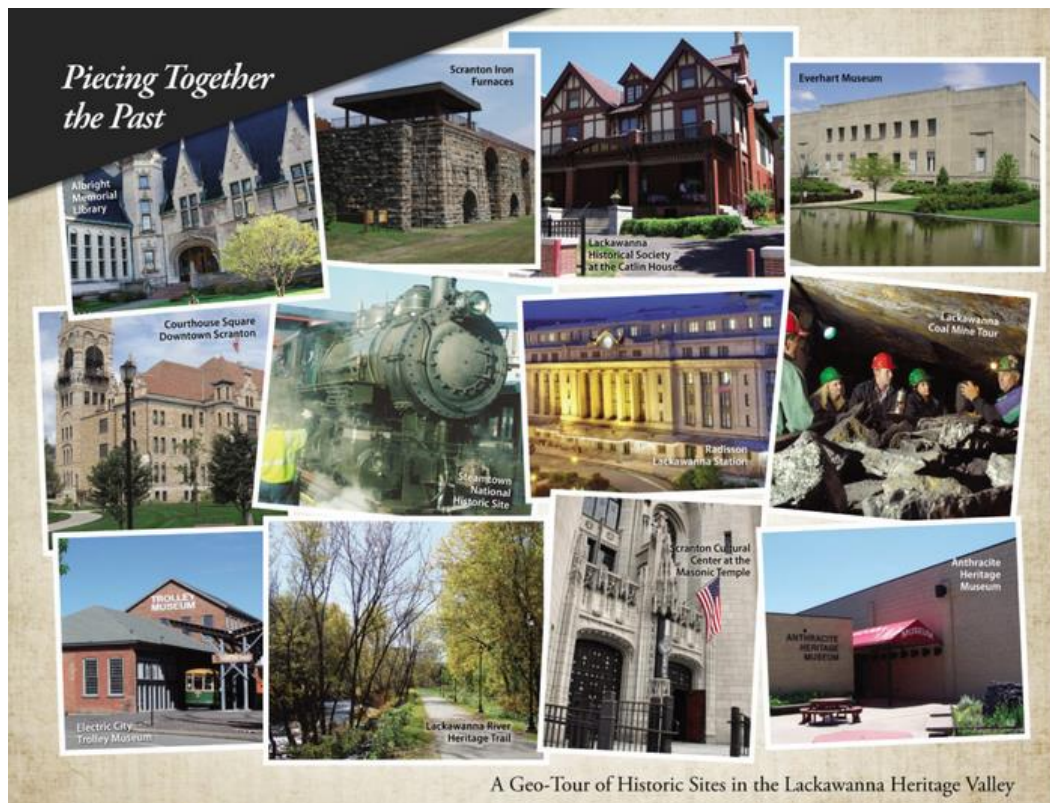


Figure 17. Lackawanna Heritage Valley NHA's promotes its "Piecing Together the Past" geo-tour

Geocaching, or hunting for QR codes, is a fun way to encourage the public to visit particular heritage sites. Through a thoughtful planning and site selection process, NHAs can develop these interactive, self-guided tours based on various themes or stories they want to share. Additionally, sites that would benefit from greater visibility and increased foot traffic can be prioritized and promoted as such. Geocaching programs do require maintenance, which should be an important consideration when planning.

Virtual Tours



Figure 18. Augusta Canal NHA's virtual tours make sites accessible to a wider audience

Four percent (2 of 48) have created virtual tours of important sites within the heritage area (Figure 9). An excellent example of this can be found on Augusta Canal NHA's website. Augusta Canal NHA, located in Augusta, Georgia, offers nine virtual tours of sites along the nine-mile canal, including the "Pumping Station," "River Levee Trail," and "Sibley Mill" (Augusta Canal NHA 2014). Users can pan through the interconnected tours and click on icons along the way that link to videos, audio clips, photo galleries, educational snippets, and other websites, with more information about what the user is viewing. Augusta Canal NHA received

funding from the City of Augusta through the Augusta Convention and Visitors Bureau to hire a production consultant to create these virtual tours.

Virtual tours are an excellent way for NHAs to share stories and experiences with people who are unable to visit the site in person. If produced well, they are also a great way of enticing the viewer to visit the NHA and see the site in real life. Additionally, virtual tours can serve as an interactive educational resource for students to learn history and heritage through.

Augmented Reality



Figure 19. Lincoln Home NHS's AR app for the Jenkins lot gives visitors a glimpse back in time

At the time the research for this project was conducted, there was no evidence of any NHAs having developed an AR application and promoting it via their website (Figure 9). In recent years, the National Park Service has used AR to tell stories that are less obvious, or invisible, to the human eye at National Parks and Historic Sites across the country. One example of this can be found at the Lincoln Home National Historic Site in Springfield, Illinois. Fourteen historic structures in the four-block area surrounding the home of Abraham Lincoln are still

standing; however, many other structures from that era are gone. These empty lots give visitors an “inaccurate impression of the historic Lincoln neighborhood” (National Park Service 2016).

Visitors can now use AR to learn the story of Jameson Jenkins, an African American Underground Railroad conductor, who lived in a house in Lincoln’s neighborhood that is no longer standing. By downloading a free app on their smartphone or tablet and pointing the device at a “target sign” in the house lot, visitors can experience Jenkins’ story through a series of vignettes with historically accurate visual representations, sounds, and narration. NPS intends to use this technology at other vacant lots at Lincoln Home NHS to “help provide a more well-rounded and educational experience for visitors” (National Park Service 2016). NHAs may find this technology useful for sharing stories about people, places, and things that no longer exist in their historically significant form.

Discussion

In summary, NHAs are using a mix of social media platforms and other technologies to share their stories. It would be premature to conclude that there is one “standard” approach across all forty-eight NHAs, however. The diversity in themes, resources, and audiences across NHAs make it more appropriate to focus on particular social media platforms and technologies over others. While the types of information being shared varied greatly, typically NHAs were using social media and other technologies to give updates about recent projects or awards, information about upcoming events, an inventory of the natural, cultural, and historical resources in the heritage area, the history behind why the NHA exists, and documentation of traditions and heritage living on today in the NHA.

Recommendations

This section provides a number of management recommendations for NHAs. These recommendations are organized into two main categories: 1) NHAs' use of social media, and 2) NHAs' use of other technologies.

Social Media

First and foremost, each NHA should create accounts on all four social media platforms and complete the profiles in a manner consistent with each other, and with the NHA's brand. Regardless of whether or not the NHA can commit to staying very active on every account, this allows it to be discovered by diverse audiences. It also allows others who are engaging with the NHA to connect and share content with on various platforms. Resources should be given to maintain a level of social media presence that is appropriate for the NHA's goals. Additionally, thought should be given to how an NHA can grow its audiences on each platform to expand its reach.

NHAs should use social media platforms to connect and support other organizations that are relevant to its mission, be it through geographical location, similar interpretive themes, or other partners on various scales. NHAs should foster relationships with relevant social media users who can benefit from cross-promoting each other's content. Sharing others' content with a caption making it relevant to the NHA is less resource consumptive because there is no need to reinvent the wheel.

Finally, NHAs should use social media platforms to engage their audiences. This can be done by inviting community participation through hosting photo contests, or asking the public to share their personal stories about the NHA's or a particular site's significance to them.

Other Technologies

Taking a step beyond social media, NHAs should be compelled to use other technologies to engage new audiences that are less inclined to read at length. An interactive timeline is a much more pleasant way to learn the chronology of the history of a place than reading a chapter of a book. Watching short, informative videos is more enjoyable, and more accessible to many, than readings paragraphs of text. NHAs can start with the low hanging fruit of developing photo galleries, and progress into using free software to build interactive maps and timelines.

NHAs naturally seek partnerships with likeminded community organizations; however, they should also think outside of the box to leverage funding and resources for projects that other entities may have an interest in. Potential fruitful partnerships may be made with state, regional, and local tourism agencies, as well as with educational institutions.

Before embarking on any technology project, NHAs should assess the costs associated with and intended uses of that technology. It is advisable that the project has multiple uses and ways in which it can be promoted. It is also important that some method of evaluating the success, effectiveness, and benefits of a project is developed and implemented. Collecting these types of metrics can be very useful when seeking grant funding.

Perhaps most important, yet often overlooked, is the necessity of developing a marketing strategy for any content that is created. Too often it appears that significant resources are put into creating a project, such as a professionally produced video, and the video sits on YouTube for years and only gains a few hundred views. If the NHA relies only on people to search or browse YouTube and happen across their content, they will likely be disappointed because the competition for content is so high.

Conclusion

In conclusion, this capstone project sought to answer the following two primary research questions: 1) how are America's National Heritage Areas (NHAs) using technology to share their stories, and 2) what types of information are NHAs using technology to share?

Observational content analysis of the forty-eight active NHA websites and social media accounts found that while NHAs are using technology to tell their stories, there is much room for growth and improvement for most, if not all NHAs. Overall, there is only a small number of NHAs that are very active on social media, and are utilizing technology as a new and exciting way to share their stories.

Bibliography

Alliance of National Heritage Areas. 2018. *The Alliance of National Heritage Areas*. Accessed March 12, 2018. <https://www.nationalheritageareas.us/>.

Atchafalaya NHA. 2018. *Artisans of the Atchafalaya*. Accessed April 17, 2018. <http://www.atchafalaya.org/artisan-movies>.

Augusta Canal NHA. 2014. *Augusta Canal Virtual Tours*. Accessed April 12, 2018. <http://augustacanal.com/AC/index.html>.

Blackstone River Valley NHC. 2018. *Photo of the Week*. Accessed April 16, 2018. <https://blackstoneheritagecorridor.org/happening-now/photo-of-the-week/>.

Blaser, Monica K. 2015. "Opportunities of an Interpretive Application for Self-guided Tourism within the National Park System." *Professional Projects from the College of Journalism and Mass Communications*. Vol. 6. University of Nebraska - Lincoln.

Cache la Poudre River NHA. 2018. *Interactive Map*. Accessed April 2, 2018. <https://www.poudreheritage.org/interactive-map/>.

Crossroads of the American Revolution NHA. 2018. *Crossroads of the American Revolution NHA*. Accessed April 13, 2018. <http://revolutionarynj.org/>.

—. 2018. *Meet Your Revolutionary Neighbors*. Accessed April 13, 2018. <http://revolutionarynj.org/the-people/>.

—. 2018. *Revolutionary Storylines*. Accessed April 13, 2018. <http://revolutionarynj.org/the-stories/>.

Delare and Lehigh NHC. 2018. *D&L Map*. Accessed April 3, 2018. <http://delawareandlehigh.org/map/>.

- Erie Canalway NHC. 2018. *Guide to Canal Structures*. Accessed April 16, 2018.
<https://eriecanalway.org/gallery/special-galleries/guide-canal-structure>.
- Freedom's Frontier NHA. 2018. *FFNHA Map*. Accessed April 3, 2018.
<http://www.freedomfrontier.org/Visitors/View-Map/>.
- Freedom's Way NHA. 2018. *Freedom's Way National Heritage Area*. Accessed April 12, 2018.
<http://freedomsway.org>.
- Grainger Clemson, Hannah. 2014. "Trailfinders—curating an interactive city promenade experience with mobile phones." *Digital Creativity* 25 (4): 330-342.
- Kunda, Sue, and Mark Anderson-Wilk. 2011. "Community Stories and Institutional Stewardship: Digital Curation's Dual Roles of Story Creation and Resource Preservation." *Libraries and the Academy* (The Johns Hopkins University Press) 11 (4): 895-914.
- Lackawanna Heritage Valley NHA. 2018. *Piecing Together the Past*. Accessed April 13, 2018.
<http://www.lhva.org/piecing-together-the-past-a-geo-tour-of-historic-sites-in-the-lackawanna-heritage-valley/>.
- Merriam-Webster. 2018. *Merriam-Webster Dictionary*. Accessed April 22, 2018.
<https://www.merriam-webster.com/dictionary/heritage>.
- Mississippi Delta NHA. 2018. *Mississippi Delta Top 40*. Accessed April 14, 2018.
<http://msdeltatop40.com/about/>.
- National Park Service. 2016. *Augmented Reality Bringing the Jameson Jenkins Lot Back to Life at Lincoln Home*. November 11. Accessed April 10, 2018.
https://www.nps.gov/subjects/ugrr/community/news_details.htm?NEWSID=5377807.
- . 2018. *Map of National Heritage Areas*. Accessed April 18, 2018.
<https://www.nps.gov/maps/full.html?mapId=01a03739-ab0c-40eb-bc3d-6791d3bb67fa>.

—. 2018. *National Heritage Areas*. Accessed April 4, 2018.

<https://www.nps.gov/subjects/heritageareas>.

Niagara Falls NHA. 2018. *Discover Niagara Apps*. Accessed April 20, 2018.

<http://www.discoverniagara.org/apps/>.

Olson, Elizabeth. 2011. "Smithsonian Uses Social Media to Expand Its Mission." *The New York Times*, March 16.

Petrelli, Daniela, Luigina Ciolfi, Dick van Dijk, Eva Hornecker, Elena Not, and Albrecht

Schmidt. 2013. "Integrating Material and Digital: A New Way for Cultural Heritage."

Interactions, July-August: 58-63.

Purkis, Harriet. 2016. "Making Digital Heritage about People's Life Stories." *International Journal of Heritage Studies* 1-11.

Rivers of Steel NHA. 2018. *Online Collections Database*. Accessed April 3, 2018.

<http://riversofsteel.pastperfectonline.com/>.

Shenandoah Valley Battlefields NHD. 2018. *Shenandoah at War: History*. Accessed April 1, 2018. <http://www.shenandoahatwar.org/history/>.

Silos and Smokestacks NHA. 2018. *Silos and Smokestacks NHA Flickr*. Accessed April 2, 2018.

<https://www.flickr.com/photos/ssnha/>.

South Park NHA. 2018. *Slice of South Park*. Fairplay, CO, April 11.

Tammaro, Anna Maria. 2016. "Heritage Curation in the Digital Age: Professional Challenges and Opportunities." *International Information & Library Review* 48 (2): 122-128.

Wheeling NHA. 2016. *Mt. Wood Cemetery*. Accessed April 24, 2018.

<http://mtwood.maps.arcgis.com/apps/MapJournal/index.html?appid=b3e78bbb728f4489ab2f84a18945acc0>.

Appendix A. National Heritage Area Websites

National Heritage Area	City	State	Website
Abraham Lincoln (Looking for Lincoln)	Springfield	IL	http://www.lookingforlincoln.com/
Arabia Mountain	Lithonia	GA	http://arabiaalliance.org/
Atchafalaya	Baton Rouge	LA	http://www.atchafalaya.org/
Augusta Canal	Augusta	GA	http://augustacanal.com/
Baltimore	Baltimore	MD	http://explorebaltimore.org/
Blackstone	Whitinsville	MA	https://blackstoneheritagecorridor.org/
Blue Ridge	Asheville	NC	http://www.blueridgeheritage.com/
Cache la Poudre River	Greeley	CO	https://www.poudreheritage.org/
Cane River	Natchitoches	LA	https://www.canerivernha.org/
Champlain Valley	Grand Isle	VT	http://www.champlainvalleynhp.org/
Crossroads of the American Revolution	Trenton	NJ	http://revolutionarynj.org/
Delaware and Lehigh	Easton	PA	http://delawareandlehigh.org/
Erie Canalway	Waterford	NY	https://eriecanalway.org/
Essex	Salem	MA	https://essexheritage.org/
Freedom's Frontier	Lawrence	KS	http://www.freedomfrontier.org/
Freedom's Way	Devens	MA	http://freedomsway.org/
Great Basin	Baker	NV	http://www.greatbasinheritage.org/
Gullah Geechee	Johns Island	SC	https://www.gullahgeecheecorridor.org/
Hudson River Valley	Albany	NY	http://www.hudsonrivervalley.com/
Illinois and Michigan Canal	LaSalle	IL	https://iandmcanal.org/
Journey Through Hallowed Ground	Waterford	VA	https://www.hallowedground.org/
Kenai Mountains-Turnagain Arm	Seward	AK	https://www.kmtacorridor.org/
Lackawanna Heritage Valley	Scranton	PA	http://www.lhva.org/

Mississippi Delta	Cleveland	MS	http://www.msdeltaheritage.com/
Mississippi Gulf Coast	Biloxi	MS	http://msgulfcoastheritage.ms.gov/
Mississippi Hills	Tupelo	MS	http://www.mississippihills.org/
Mormon Pioneer	Mt. Pleasant	UT	http://www.mormonpioneerheritage.org/
MotorCities	Detroit	MI	http://www.motorcities.org/
Muscle Shoals	Florence	AL	http://msnha.una.edu/
National Aviation	Dayton	OH	https://www.aviationheritagearea.org
National Coal	Oak Hill	WV	https://coalheritage.wv.gov/Pages/default.aspx
Niagara Falls	Niagara University	NY	http://www.discoverniagara.org/
Northern Plains	Mandan	ND	http://www.northernplainsheritage.org/
Northern Rio Grande	Espanola	NM	http://riograndenha.org/index.html
Ohio and Erie Canalway	Akron	OH	http://www.ohioeriecanal.org/
Oil Region	Oil City	PA	http://www.oilregion.org/
Rivers of Steel	Homestead	PA	https://www.riversofsteel.com/
Sangre de Cristo	Alamosa	CO	http://sdcnha.org/wp/
Schuylkill River	Pottstown	PA	http://www.schuylkillriver.org/
Shenandoah Valley Battlefields	New Market	VA	http://www.shenandoahatwar.org/
Silos and Smokestacks	Waterloo	IA	http://www.silosandsmokestacks.org/
South Carolina	Belton	SC	http://www.scnhc.org/
South Park	Fairplay	CO	http://www.southparkheritage.org/
*Southwestern Pennsylvania Heritage Preservation Commission	Altoona	PA	N/A
Tennessee Civil War	Murfreesboro	TN	http://www.tncivilwar.org/
The Last Green Valley	Danielson	CT	http://thelastgreenvalley.org/
Upper Housatonic Valley	Salisbury	CT	https://housatonicheritage.org/
Wheeling	Wheeling	WV	http://wheelingheritage.org/
Yuma Crossing	Yuma	AZ	https://www.yumaheritage.com/
* <i>Sunset in 2008</i>			

Appendix B. Social Media Assessment

National Heritage Area	Facebook	Instagram	Twitter	YouTube
<i>Abraham Lincoln (Looking for Lincoln)</i>	Very Active	Not Active	Very Active	Not Active
<i>Arabia Mountain</i>	Very Active	Not Active	Active	Not Active
<i>Atchafalaya</i>	Very Active	Somewhat Active	Very Active	Somewhat Active
<i>Augusta Canal</i>	Somewhat Active	Not Active	Very Active	Not Active
<i>Baltimore</i>	Somewhat Active	Not Active	Not Active	Not Active
<i>Blackstone</i>	Very Active	Not Active	Not Active	Somewhat Active
<i>Blue Ridge</i>	Very Active	N/A	Not Active	N/A
<i>Cache la Poudre River</i>	Very Active	Very Active	Not Active	Somewhat Active
<i>Cane River</i>	Not Active	Not Active	N/A	N/A
<i>Champlain Valley</i>	Active	N/A	N/A	N/A
<i>Crossroads of the American Revolution</i>	Very Active	N/A	Not Active	Active
<i>Delaware and Lehigh</i>	Very Active	Very Active	Very Active	Active
<i>Erie Canalway</i>	Very Active	Somewhat Active	Not Active	Not Active
<i>Essex</i>	Active	Not Active	Not Active	N/A
<i>Freedom's Frontier</i>	Very Active	Not Active	Not Active	Active
<i>Freedom's Way</i>	Very Active	Very Active	Very Active	Active
<i>Great Basin</i>	Not Active	N/A	N/A	N/A
<i>Gullah Geechee</i>	Very Active	N/A	Not Active	Active
<i>Hudson River Valley</i>	Not Active	Not Active	Not Active	N/A
<i>Illinois and Michigan Canal</i>	Not Active	Active	Somewhat Active	Somewhat Active
<i>Journey Through Hallowed Ground</i>	Very Active	N/A	N/A	Not Active
<i>Kenai Mountains-Turnagain Arm</i>	N/A	N/A	N/A	Not Active
<i>Lackawanna Heritage Valley</i>	Active	Very Active	Somewhat Active	Active
<i>Mississippi Delta</i>	Very Active	N/A	N/A	N/A
<i>Mississippi Gulf Coast</i>	Very Active	N/A	N/A	Not Active
<i>Mississippi Hills</i>	Not Active	Not Active	Not Active	Not Active
<i>Mormon Pioneer</i>	Very Active	N/A	Very Active	Active

<i>MotorCities</i>	Very Active	Not Active	Very Active	Very Active
<i>Muscle Shoals</i>	Very Active	N/A	N/A	Active
<i>National Aviation</i>	Not Active	Not Active	Active	Active
<i>National Coal</i>	Active	Not Active	N/A	N/A
<i>Niagara Falls</i>	Somewhat Active	N/A	Not Active	Somewhat Active
<i>Northern Plains</i>	Not Active	N/A	N/A	N/A
<i>Northern Rio Grande</i>	Active	Somewhat Active	Not Active	Somewhat Active
<i>Ohio and Erie Canalway</i>	Somewhat Active	Not Active	Somewhat Active	Not Active
<i>Oil Region</i>	Somewhat Active	N/A	Active	Somewhat Active
<i>Rivers of Steel</i>	Not Active	Not Active	N/A	N/A
<i>Sangre de Cristo</i>	Very Active	Active	Active	Very Active
<i>Schuylkill River</i>	Very Active	Very Active	Very Active	N/A
<i>Shenandoah Valley Battlefields</i>	Active	N/A	Very Active	Very Active
<i>Silos and Smokestacks</i>	Very Active	Somewhat Active	Very Active	Somewhat Active
<i>South Carolina</i>	Active	Not Active	N/A	Not Active
<i>South Park</i>	Not Active	Not Active	Not Active	Very Active
<i>Tennessee Civil War</i>	Not Active	N/A	N/A	N/A
<i>The Last Green Valley</i>	Very Active	Not Active	Very Active	Somewhat Active
<i>Upper Housatonic Valley</i>	Not Active	N/A	N/A	N/A
<i>Wheeling</i>	Very Active	Not Active	Active	Somewhat Active
<i>Yuma Crossing</i>	Active	N/A	N/A	N/A

Appendix C. Other Technologies Assessment

National Heritage Area	Audio	AR	Interactive Maps	Interactive Timelines	Mobile Apps	Photo Galleries	QR Codes	Story Maps	Videos	Virtual Tours
<i>Abraham Lincoln (Looking for Lincoln)</i>	N	N	N	N	N	Y	N	N	Y	N
<i>Arabia Mountain</i>	N	N	Y	N	N	Y	Y	N	N	N
<i>Atchafalaya</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>Augusta Canal</i>	N	N	N	N	N	Y	N	N	N	Y
<i>Baltimore</i>	N	N	Y	N	N	N	Y	N	N	N
<i>Blackstone</i>	N	N	Y	N	N	Y	N	N	N	N
<i>Blue Ridge</i>	Y	N	Y	N	N	Y	N	N	Y	N
<i>Cache la Poudre River</i>	Y	N	Y	Y	N	N	N	N	Y	N
<i>Cane River</i>	N	N	N	N	N	N	N	N	N	N
<i>Champlain Valley</i>	N	N	N	N	N	N	N	N	N	N
<i>Crossroads of the American Revolution</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>Delaware and Lehigh</i>	N	N	Y	N	N	Y	N	N	N	N
<i>Erie Canalway</i>	N	N	Y	Y	N	Y	N	N	Y	N
<i>Essex</i>	N	N	N	N	N	N	N	N	N	N
<i>Freedom's Frontier</i>	N	N	Y	Y	N	Y	N	N	Y	N
<i>Freedom's Way</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>Great Basin</i>	N	N	N	N	N	N	N	Y	N	N
<i>Gullah Geechee</i>	N	N	N	N	N	N	N	Y	N	N
<i>Hudson River Valley</i>	N	N	Y	N	Y	Y	N	Y	Y	N
<i>Illinois and Michigan Canal</i>	N	N	N	N	N	N	N	N	N	N
<i>Journey Through Hallowed Ground</i>	N	N	N	N	N	Y	N	N	Y	N
<i>Kenai Mountains-Turnagain Arm</i>	N	N	N	N	N	N	N	Y	Y	N
<i>Lackawanna Heritage Valley</i>	N	N	Y	N	N	Y	Y	N	N	N
<i>Mississippi Delta</i>	N	N	N	N	N	Y	N	N	Y	N
<i>Mississippi Gulf Coast</i>	N	N	Y	N	Y	Y	N	Y	Y	N
<i>Mississippi Hills</i>	N	N	Y	N	N	N	N	N	Y	N
<i>Mormon Pioneer</i>	N	N	N	N	N	Y	N	N	Y	N
<i>MotorCities</i>	N	N	Y	N	N	N	N	N	Y	N
<i>Muscle Shoals</i>	Y	N	N	N	N	Y	N	N	Y	N

<i>National Aviation</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>National Coal</i>	N	N	N	N	N	N	N	N	N	N
<i>Niagara Falls</i>	N	N	Y	N	Y	Y	N	N	N	N
<i>Northern Plains</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>Northern Rio Grande</i>	N	N	N	N	N	Y	N	N	N	N
<i>Ohio and Erie Canalway</i>	N	N	N	N	N	N	N	N	N	N
<i>Oil Region</i>	N	N	N	N	N	Y	N	N	N	N
<i>Rivers of Steel</i>	Y	N	Y	N	N	Y	N	N	Y	N
<i>Sangre de Cristo</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>Schuylkill River</i>	N	N	N	N	N	N	N	N	N	N
<i>Shenandoah Valley Battlefields</i>	N	N	Y	Y	N	N	N	N	N	N
<i>Silos and Smokestacks</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>South Carolina</i>	N	N	N	N	N	Y	N	N	N	N
<i>South Park</i>	Y	N	Y	Y	N	N	Y	N	N	Y
<i>Tennessee Civil War</i>	N	N	N	N	Y	N	N	N	N	N
<i>The Last Green Valley</i>	N	N	Y	N	N	Y	N	N	Y	N
<i>Upper Housatonic Valley</i>	N	N	Y	N	N	N	N	N	N	N
<i>Wheeling</i>	N	N	N	Y	N	N	N	Y	Y	N
<i>Yuma Crossing</i>	N	N	Y	N	N	N	N	N	N	N